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clarion Service Manual

Published by Service Administration Section

PU-9479A

UKW•MPX/MW/LW RADIO CASSETTE COMBINATION

Model PU-9479A•B

■SPECIFICATIONS:

Radio section

Circuit system: Superheterodyne
Tuning system: Electronic tuning
Receiving frequency: LW 153kHz to 281kHz
MW 531kHz to 1,602kHz
UKW(FM)
87.5MHz to 108MHz
Intermediate frequency:
LW, MW 459kHz
UKW(FM) 10.7MHz

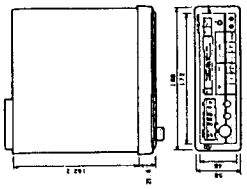
Tape section

Reproduction system: Auto reversing
4 track, 2 channel stereo cassette tape playback
(Monaural also capable)
Tape speed: 4.76cm/sec. (1-7/8 ips)

Composite

Load impedance: 4Ω×4
Power output: 15W×4
Power supply voltage:
DC 14.4V(10.8V to 15.6V)
Negative ground
Power consumption: Less than 10A
(at max. output)

Dimensions:



Weight: 1.7kg

- Dolby noise reduction System manufactured under license from Dolby Laboratories Licensing Corporation.
- "Dolby" and the double-D symbol ⧈ are trademarks of Dolby Laboratories Licensing Corporation.

■COMPONENT:

- **PU-9479A-A/PU-9479B-A**
  Main unit 1

■FEATURES:

- Electronic Quartz-Locked PLL Tuning
- One Touch Memory (12FM, 6MW/LW)
- Tuning Mode
  FM; Manual Up/Down Tuning (50 kHz Step)
  Seek Up/Down Tuning (50 kHz Step)
  LW; Manual Up/Down Tuning (1 kHz Step)
  Seek Up/Down Tuning (1 kHz Step)
  MW; Manual Up/Down Tuning (9 kHz Step)
  Seek Up/Down Tuning (9 kHz Step)
- AS (Automatic Station Store) for MW, LW, FM
- Super SASCII & CZ_1 ..... Signal Actuated Stereo Control
- Auto DX/LO for SEEK
- Key-Off Pinchroller Release
- Dual Azimuth Adjustment Mechanism
- LOUDNESS, FADER, BASS/TREBLE
- Dolby® B Noise Reduction
- Maximum Power Output 15 W × 4
- CATS (Computer Anti-Theft System)
- **DIMMER Switch**
- Slide Out Chassis
- LCD Display
- Night Illumination

■CATS III (Computer Anti-Theft System III)

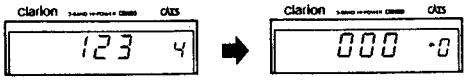
I. Operation

[1] Entering the CATS Code No.

1. Turn the power off.
2. Press the T.MODE button, and while keeping it down turn the power on.

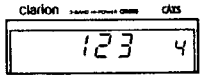
Digital Display
0000 indication starts blinking.

3. Input an arbitrary 4-digit number using the Preset Switches (1 to 6).



(Example) Input 1-2-3-4. 0000 starts blinking again.

4. Input the same four digits again.



CATS Code No. input completed. Now the unit will operate normally.

(Example) Input 1-2-3-4.

Notes:

1. In case you have input a wrong 4-digit number in step 3 of "Entering the CATS Code No.":
   If you have input, for example, 2-2-3-4 instead of 1-2-3-4, input any 4-digit number other than 2-2-3-4 in step 4. The unit will return to the condition in step 2, where the CATS indication starts blinking. Continue by keying in the correct CATS Code No.
2. If the input numbers in step 3 and 4 do not match. If you input, for example, 1-2-3-4 in step 3 and then 2-2-3-4 in step 4, the unit will return to its original condition. Continue with steps 3 and 4.
3. In case you realize your mistake before entering all 4 digits in step 3 or 4, enter any digits to complete the input. Then proceed as explained in notes 2 or 3 above.

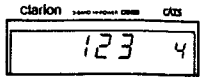
Proceed in the same way to correct input mistakes made during [2] Releasing CATS or [3] Erasing CATS No. procedures.

[2] Releasing CATS (when you have removed the car stereo or sent the car for servicing)

1. Turn the power on.

Digital Display
0000 indication starts blinking.

2. Input your CATS Code No.



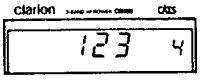
(Example) Input 1-2-3-4

[3] Erasing and Changing the CATS Code No.

1. Turn the power off.
2. Press the T.MODE button, and while keeping it down turn the power on.

Digital Display
0000 indication starts blinking.

3. Input your CATS Code No.



CATS Code No. erasure completed. Now the unit will operate normally.
To input a new CATS Code No., follow procedure [1].

Note:

1. In case you input a wrong CATS Code No. in step 3, the unit will return to the condition after step 1, so continue with steps 2 and 3.

■ADJUSTMENT:

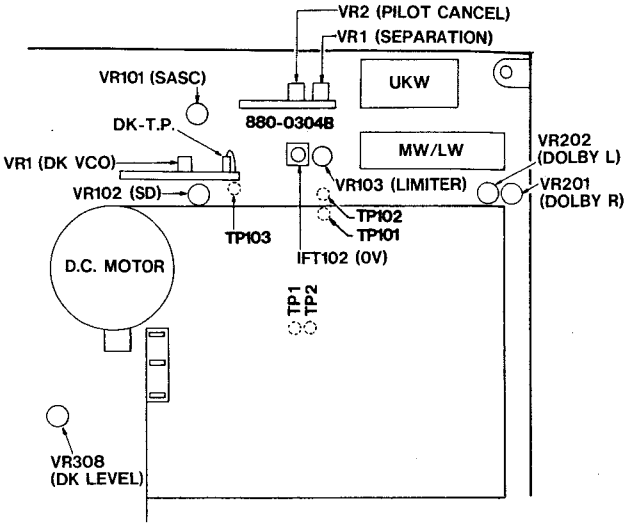
Adjustment item	Adjustment point	Procedure
0V fine adjustment	IFT102	1. Tune 98.0MHz and input a 40dB 30%-modulated SSG signal. 2. Connect a digital volt meter to TP101 and TP102. 3. Adjust IFT102 so that the voltage is 0V ± 30mV. 4. May adjust 0V by receiving weak broadcasting signal.
Stop seek sensitivity (SD)	VR102	1. Tune at 98.0MHz, input a 20dB non-modulated SSG signal. 2. Adjust VR102 so that the voltage of TP103 is 5V.
Limiter (MUTE)	VR103	1. Tune at 98.0MHz, input 65dB SSG signal. 2. Adjust VR to make the set output 0dB (0.775V). 3. Reduce the output of SG 10dB. 4. Adjust VR103 untill output level decrease to 3dB.
SASC	VR101	1. Tune at 98.0MHz, input an 65dB, 7kHz modulation frequency, 30% modulation degree SSG signal. 2. Adjust the output level of the volume controller to 0dBm (0.775V). 3. Set the SSG output to 38dB and adjust VR101 so that the output level is −2dB.
MPX Separation	VR1 (880-0304B)	1. Tune at 98.0MHz, connect the output of a stereo modulator to the external modulation terminal, and input a 65dB SSG signal. 2. Set the stereo modulator to the L or R ch and adjust VR1 so that the maximum separation is obtained.
Pilot canceller	VR2 (880-0304B)	1. Tune at 98.0MHz, input a 65dB, modulation (PL 10%). 2. Adjust VR2 so that output of the set is minimum.
DK VCO	VR1 (880-0201B)	1. Tune at 98.0MHz, input a 65dB 10% modulated SSG signal. 2. Connect the frequency counter to DK TP and adjust VR1 so that the counter indicates 125Hz. In the case.
DK level	VR308	1. Tune at 98.0MHz 100% (Main + PL + DK + SK + BK) modulated SSG signal, and turn on VF. SW. 2. At the time of minimum sound volume, adjust VR308 to make the speaker output 0.775V.

● SPECIFICATION —LIMIT— Quieting sensitivity: MW Less than 32dB (at 20dB S/N)
LW Less than 40dB (at 20dB S/N)
UKW Less than 12dB (at 30dB S/N)
Stereo separation: UKW More than 20dB

● DOLBY Circuit

Item	Adjustment point	Adjustment
Dolby NR	VR201 and VR202	Insert a Dolby level test tape (400Hz–200nWb/m), connect the millivoltmeter to TP1 and TP2, and adjust VR201 and VR202 to obtain an output of 245mV. (DOLBY SW : OFF)

● ADJUSTMENT POINT



■ EXPLANATION OF IC's:

Refer to description in IC service manual vol 1.			
TC4066BP	051-0267-00	Quad Bilateral Switch	P39
BT3S501	051-0606-00	Tone Control	P23

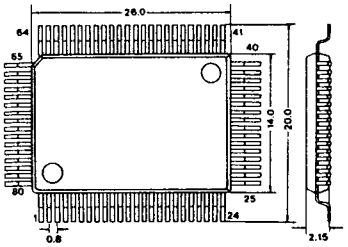
Refer to description in IC service manual vol 2.			
AN6263N	051-0561-01	Music interval Detection	P42

Refer to description in IC service manual vol 3.			
LB0354	051-0619-01	Loudness with Muting	P22
TA8205AH	051-0958-01	15W Power Amp	P24
CXA1102P	051-1038-00	Dolby B NR System	P14
S-8053ALR	051-1148-00	C-MOS Voltage Detector	P43

■ LC7230-8218 051-1141-00
LC7230-8236 051-1141-02 Tuner controller

※051-1141-02 is improved from 051-1141-00.

I. Outward Form



II. Maximum Ratings (Ta=25°C)

Item	Symbol	Condition	Rating	Unit
Supply voltage	V_{DD}	———	−0.3~6.5	V
Input voltage	$V_{IN}(1)$	Pin 3~6, 66, 68, 72 terminals	−0.3~6.5	V
	$V_{IN}(2)$	Pin 67 terminal	−0.3~13	V
	$V_{IN}(3)$	Input other than $V_{IN}(1)$	−0.3~V_{DD}+0.3	V
Output voltage	$V_{OUT}(1)$	Pin 7~10 terminals	−0.3~15	V
	$V_{OUT}(2)$	Output other than $V_{OUT}(1)$	−0.3~V_{DD}+0.3	V
Power dissipation	Pd	−40°C~+85°C	400	mW

■ TAPE MECHANISM

1. Head-azimuth Adjustment

Make playback for the azimuth-tape (8kHz, −10VU), and turn each azimuth-adjusting screw to make each FWD & REV maximum. After adjustment, make adhesion with bond.

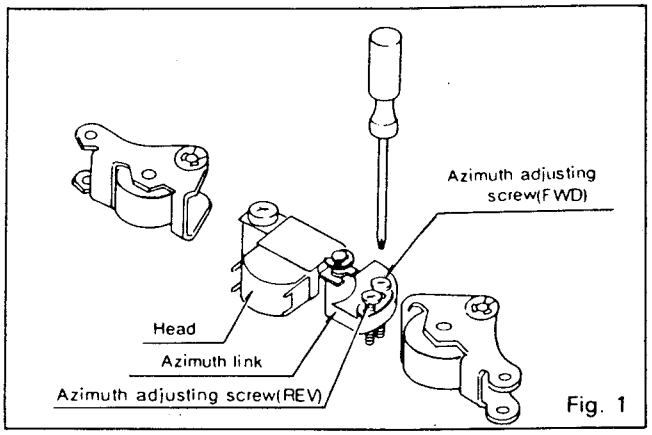
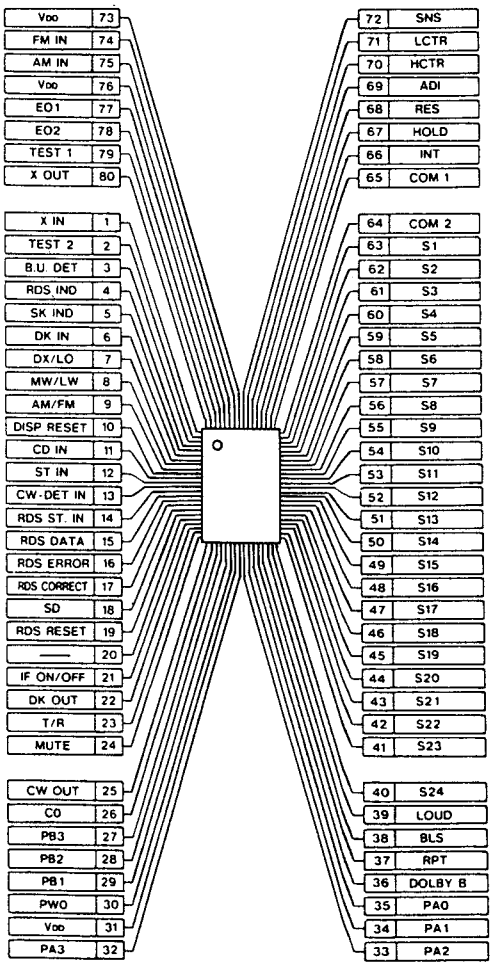


Fig. 1

● SPECIFICATION —LIMIT—
Wow & flutter : Less than 0.25%(W.R.M.S.)

III. Terminal Connection



Ⅳ. Terminal Connection Table

Pin No	Symbol	Function	I/O
1 80	X IN X OUT	Terminal for connecting an crystal resonator (4.5MHz)	I/O
2 79	TEST 2 TEST 1	LSI test pin to be connected to the open or the ground	–
3	BACK UP DET	When this pin is "L", the microcomputer goes into the BACK UP mode	I
4			
5	SK IND	SK indicator driving input pin Active Low	
6	DK IN	DK discriminating signal input pin. Active : Low	
7	DX/LO	DX/Local automatic changeover output pin DX : High LO : Low	O
8	MW/LW	MW/LW band changeover output pin MW : Low LW: High	
9	AM/FM	MW/UKW band changeover output pin AM : Low FM: High	
10	DISP RESET	Display reset output pin Active Low	
11			I
12	ST IN	Stereo signal input terminal Active : Low	
13			
14			
15			I/O
16			
17			
22	DK OUT	DK output terminal. Active : Low	O
23	T/R	Audio source output pin in TAPE/RADIO mode. TAPE mode : High RADIO mode : Low	O
24	MUTE	Muting signal output Active : Low	
25			
26 27 28 29 30	PC0 PB3 PB2 PB1 PB0	Key return signal terminals for key matrix.	O
31 73	V_{DD}	Power supply terminal of the device	–
32 33 34 35	PA3 PA2 PA1 PA0	Key matrix signal input terminal Attach pull-down resistance	I
36	DOLBY-B	Dolby control signal output pin. For DOLBY ON. Active-high for 50mS For DOLBY ON. Active-high	O
37	MTL	MTL control signal pin in TAPE mode For MTL : ON. Active-high	
38	APC	APC control signal pin in TAPE mode For APC : ON. Active-high	
39	LOUD	LOUD control signal pin in TAPE mode For LOUD ON. Active-high	
40 ⋮ 63	S24 ⋮ S1	Segment signal terminals for LCD panel	O
64 65	COM1 COM2	Common signal output terminals for LCD panel	O
66			I
67	$\overline{HOLD}$	Input pin for setting the HOLD mode	I
68	$\overline{RES}$	Reset signal input terminal	I
69	ADI	A/D converter input pin	I
70	HCTR	Universal counter input terminal For FM IF counter	I
71	LCTR	Universal counter input terminal For AM IF counter	I
72	$\overline{SNS}$	Input pin for deciding if a power failure occurs in the BACK UP mode	I
74	FM IN	FM Local oscillation signal input.	I
75	AM IN	AM Local oscillation signal input.	I
76	GND	Ground	–
77 78	EO1 EO2	The charge pump outputs of the phase detectors which consist of PLL. Unlock time allows the output of errors. EO1 & EO2 allow the outputs in the same waveform and therefore either of them can be used	O

Ⅴ. Key Matrix

§1. Key Matrix Connection Table

Key Out \ Key In	PA0 (Pin 35)	PA1 (Pin 34)	PA2 (Pin 33)	PA3 (Pin 32)
PC0 (Pin 26)	MECH MI-COM ENABLE-DISABLE		R/T	
PB0 (Pin 30)	M1	M2	M3	M4 /APC
PB1 (Pin 29)	TUNE UP	BAND	M5/MTL	M6/□□B
PB2 (Pin 28)	TUNE DOWN	T-MODE	PS	LOUD
PB3 (Pin 27)		VF	AS	——

Diode SW Momentary SW Transistor SW

§2. Diode SW

In the Table below, "0" means the diode switch is OFF (Open) and "1" does the diode switch is ON (Short).

Switch name	Function
MECH MI-COM ENABLE/DISABLE	Mechanical microcomputer enable/disable switch OFF Mechanical microcomputer enable mode ON Mechanical microcomputer disable mode

§3. Transistor SW

Switch name	Function
R/T SEL	TAPE/RADIO changeover signal switch OFF TAPE mode This switch serves as the M4 to M6 keys and the TAPE key Note In the mechanical microcomputer disable mode, the switch provides the traveling display (◀▶) APC, MTL, and □□ displays ON RADIO mode This switch serves as the M4 to M6 keys and the RADIO key
TAPE FOW/REV	Tape FOW/REV display changeover switch OFF ▶ display ON ◀ display

§4. Momentary SW

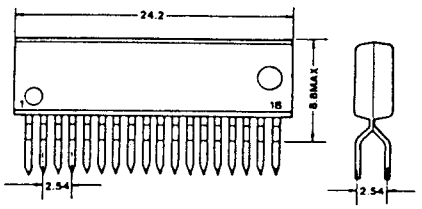
Switch name	Function
M1 M6 APC/MTL □□B	○RADIO mode Preset memory writing/calling keys One button allows the independent writing into memory in each band of FM, FM AS, and MW/LW 〈Writing into memory〉 Continuous press of the "M1" to "M6" keys for 2 sec or more allows the writing into M1 to M6. Muting applied during 2 sec press is released after completion of writing. 〈Calling memory〉 Pressing the key within 2 sec allows the memory calling. Muting applied is released after completion of calling. (No muting is applied if the memory calling is carried out in the same frequency.) The LCD channel (CH) indicator is lit up when the "M1" to "M6" keys are pressed displaying the receive frequency equivalent to the frequency when the key is released ○TAPE mode ①Cassette mechanical microcomputer enable mode When each function is turned ON, each port generates the High output for 50ms M4 M5 M6/□□B (Dolby-B) ②Cassette mechanical microcomputer disable mode When each function is turned ON, each port inverses the output M4/APC M5/MTL M6/□□B (Dolby-B)

Switch name	Function
TUNE UP TUNE DOWN	○MANUAL tuning UP/DOWN ①When the MANUAL mode is set by operating the "T-MODE" key, tuning can be operated by using the "UP" or "DOWN" key. ②Short press of the key within 0 5 sec provides 1 step UP or DOWN. ③Continuous press of the key for 0 5 sec or more provides the continuous feeding, and release of the key stops the feeding. ○SEEK tuning UP/DOWN ①In the SEEK mode, tuning can be operated by using the "UP" or "DOWN" key. Usually, the SEEK mode is set (the SEEK mode is returned from the MANUAL mode for 5 sec. or by operating the "T-MODE" key). ②The SEEK tuning starts, detecting the SD signal, S meter signal, and IF counter, When the signal is judged to be detected in the station, the SEEK tuning stops, setting the last channel data to the same level as the receiving station The SEEK tuning stops after three rounds in order of LO, DX, and DX mode
BAND	Receiving band changeover key The receiving band change each time this key is pressed. ┌ UKW → MW/LW ┐
T-MODE	SEEK/MANUAL tuning changeover key. The SEEK mode is usually selected, Upon press of this key, the MANUAL mode for the TUNE UP/DOWN key is selected for 5 sec. in the MANUAL tuning mode
PS	①The content of preset memory is called in serial order every 5 sec ②When the "PSS" key is pressed, the station is received in serial order every 5 sec from the preset memory one larger number than the current preset memory. After receiving the station from M6, the station is received returing to M1. When the channel number is not displayed, the station is received starting from M1 ③When the preset station is being called, the station in which the SD signal is not detected is skipped. ④During scanning of the memory, the channel number of the preset station being held is made flashing ⑤If the "PSS" is pressed again during hold, the station in which the last SD signal is detected is called, causing the operation to stop
LOUD	LOUD ON/OFF select SW
VF	(1) VF key will become valid only when receiving UKW. With the key turned on a display is made by the LCD only in case of the UKW mode. VF is held ON also when the UKW mode is set again by changing reception bands, after turning VF on in the UKW mode. With VF turned on, auto tuning stops when SD=IF count=$\overline{SK}$=1 It does not stop by pressing this key during auto tuning. (2) VF auto retuning is performed (SEEK UP) under the following condition in the VF ON mode. $\overline{SK}$ · SD is sampled every 2 seconds (checks 200 times every 10ms, and judges as the Low level when $\overline{SK}$ −SD=0 in 101 check times or more). If the Low level continues 12 times (24 seconds) auto tuning will start. When $\overline{SK}$ − SD sampling is at the High level, a Low level count so far is cleared and a new Low level count starts from the next one. (3) a) In the UKW mode, if $\overline{SK}$ − SD=0 when shifting VF from OFF to ON retuning will be done without counting. Counting will start without retuning, if $\overline{SK}$ · SD=1 b) In the UKW mode, If you return to UKW−VF ON mode by calling a preset channel or M UP/DOWN or by changing bands, PLL lock will be detected. After 500ms, if $\overline{SK}$ · SD=0, VF retuning will be performed without counting, and if $\overline{SK}$ · SD=1, counting will start without retuning
AS	a FM Within 2 sec Changeover from FM band to FM AS band or auto store stop More than 2 sec Auto store into FM AS band. b AM Within 2 sec Irrelevant. More than 2 sec: Auto store into AM band 〈AS operation〉 1.When the " AS " key is kept ON for 2 sec or more, the auto search starts after 2 sec When the station is caught, it is stored in serial order into the preset memories M1 to M6. At the start of auto search, the search is carried out in the frequency one step larger than the receive frequency a FM The station caught through search is stored into the rear side of preset memories M1 to M6. b AM The station caught through search is stored into the preset memories M1 to M6 2.During execution of AS [AS] and CH-NO of the channel next to be stored are made flashing 3.The station in the same frequency is not stored through one-time auto store

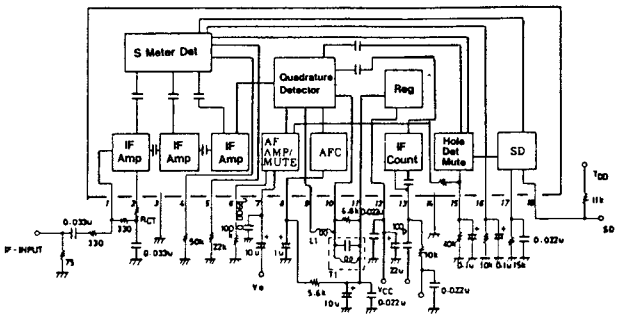
■LA1145 051-1146-00 051-1146-01 FM IF System (Quadrature Detector)

*The part of electric specification is different between 051-1146-00 and 051-1146-01. (Output level for signal meter output)

Outward Form



Block Diagram

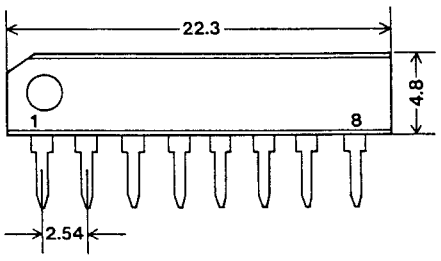


Terminal Connection

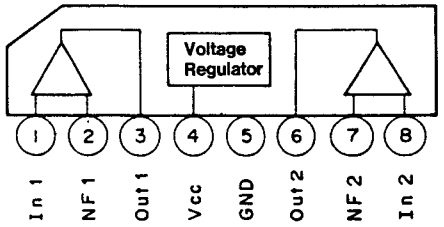
NO.	Function
1	IF Input
2	IF Amp Bias
3	IF Amp GND
4	Mute start Control
5	Mute Tilt Control
6	Mute Att Control
7	AF Output
8	AFC Output
9	IF Output
10	Quadrature Detect In
11	Voltage regulator Out
12	Vcc
13	IF Count out, Control
14	Detector GND
15	Mute Act
16	S Meter Output
17	SD Sens Control
18	SD Output

■M6901L 051-0301-03 Dual Pre Amp

Outward Form



Block Diagram



■PARTS LIST: ◎Electrical section

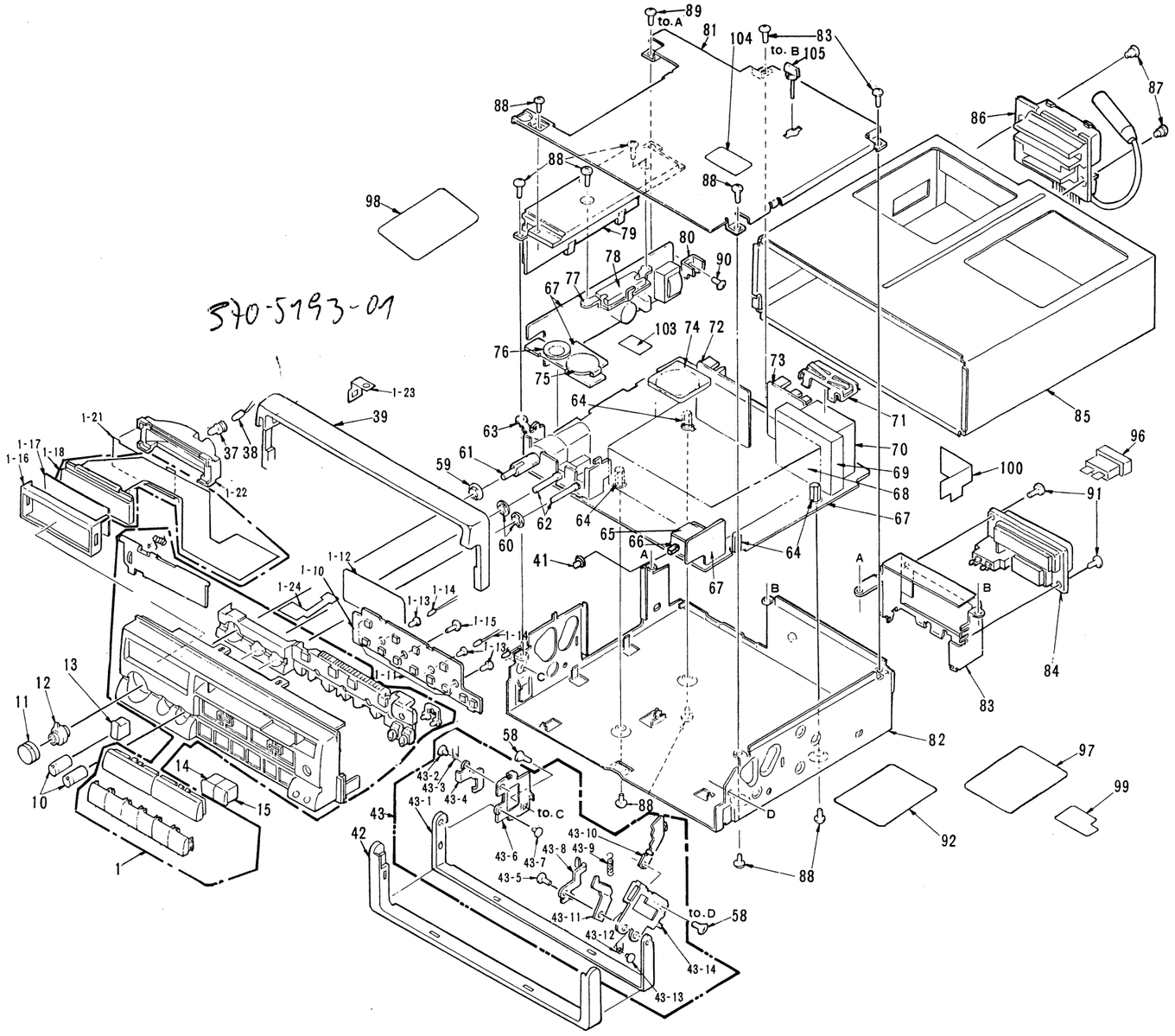
REF.NO.	PART NO.	DESCRIPTION	Q'TY
D 101~111 113,201,302 303,307,309 402~413 502,505,510 514,515	001-0330-00	Diode 1SS119	34
D508	001-0334-00	Diode DSA17B	1
D511	001-0361-00	Diode 1SS198	1
D308	001-0366-00	Diode LTZ-MR15	1
D310,504	001-0377-35	Diode MA4062M	2
D503	001-0377-36	Diode MA4062H	1
D301,401,901	001-0377-47	Diode MA4091M	3
D509	001-0423-23	Diode MA4082	1
D501,506	001-0466-00	Diode S5688B	2
D512,513	001-0502-00	Diode 1FWJ43	2
IFT101	005-0865-01	IF-transformer MS2	1
D305	001-0377-41	Diode MA4075M	1
IFT102	005-1001-00	IF-transformer DET	1
L501	009-0633-04	Choke ACC	1
L101	010-2046-12	Coil	1
L103	010-2046-17	Coil 5.6μH	1
L502,503	010-2165-01	Coil ILL	2
VR308	012-3808-06	Variable resistor 10kΩ	1
VR 102,201 202	012-3808-07	Variable resistor 22kΩ	3
VR103	012-4101-10	Variable resistor 100kΩ	1
VR101	012-3808-13	Variable resistor 470kΩ	1
CCT1	050-0077-63	Component circuit 33kΩx4	1
IC201	051-0301-03	IC M6901L	1
IC302	051-0606-70	IC BT3S501	1
IC350	051-0619-01	IC LB0354	1
IC302	051-0958-01	IC TA8205AH	1
IC301	051-1038-00	IC CXA1102P	1
IC401	051-1141-02	IC LC7230-8236	1
IC402	051-1143-00	IC	1
IC101	051-1146-00	IC LA1145	1
IC501	051-1148-00	IC S-8053ALR	1
F501	060-0057-56	Auto fuse 10A	1
SUP101	060-0122-10	Surge protector	1
X401	061-1053-00	Crystal 4.5MHz	1
BATT.	088-0017-01	Battery	1
Q105	100-1048-00	Transistor 2SA10480,Y,GR	1
Q 102,405,406 408,502	100-1346-00	Transistor 2SA1346-AC	5
Q108,109	101-0811-00	Transistor 2SB811-T	2
Q202	101-1243-50	Transistor 2SB1243	1
Q505	102-1846-00	Transistor 2SC1846Q,R,S	1
Q 103,111,203 309,310,404 407,501	102-2458-00	Transistor 2SC2458O,Y,GR,BL	8
Q101,401,402	102-2458-51	Transistor 2SC2458GR,BL	3
Q 104,107,305 403	102-3400-00	Transistor 2SC3400	4
Q106,110,306	102-3402-00	Transistor 2SC3402	3
Q503	102-3420-00	Transistor 2SC3420	1
Q301~303	103-1450-00	Transistor 2SD1450R,S,T	3

REF.NO.	PART NO.	DESCRIPTION	Q'TY
Q304,504	103-1858-00	Transistor 2SD1858P,Q,R	2
R590	032-0084-00	Fuse resistor 10Ω	1
R581	111-2201-81	Film resistor 1/2W22Ω	1
R510	111-3901-81	Film resistor 1/2W39Ω	1
R512	111-4791-81	Film resistor 1/2W4.7Ω	1
C509	042-0412-01	Double layer capacitor 5.5V1F	1
C336	042-0428-00	Alumi electrolytic capacitor 16V2200μF	1
C337	043-0251-00	Plastic film capacitor 0.1μF	1
C 106,412,413 514	160-1022-05	Ceramic capacitor 1000pF B HD	4
C327,328	160-1222-05	Ceramic capacitor 1200pF B HD	2
C113	160-3312-05	Ceramic capacitor 330pF B HD	1
C121	160-3322-05	Ceramic capacitor 3300pF HD	1
C115	160-5612-05	Ceramic capacitor 560pF B HD	1
C 406,411 511,513	171-1032-06	Ceramic capacitor 0.01μF SC	4
C 103,105,111 112,155	171-2232-06	Ceramic capacitor 0.022μF SC	5
C104,150,407	171-3332-06	Ceramic capacitor 0.033μF SC	3
C102	171-4722-06	Ceramic capacitor 0.0047μF SC	1
C410,503	171-4732-06	Ceramic capacitor 0.047μF SC	2
C119,120	171-5622-06	Ceramic capacitor 0.0056μF SC	2
C201,202	173-1022-10	Polyester capacitor 0.001μF S	2
C507	173-1042-10	Polyester capacitor 0.1μF S	1
C 322 333~335	173-2242-10	Polyester capacitor 0.22μF S	4
C207,208	173-3332-10	Polyester capacitor 0.033μF S	2
C403,404	174-2200-13	Ceramic capacitor 22pF CH TC	2
C317,331	179-2273-22	Electrolytic capacitor 10V220μF S	2
C124	179-4763-22	Electrolytic capacitor 10V47μF S	1
C508	179-4763-32	Electrolytic capacitor 16V47μF S	1
C218,303,405	182-1073-22	Electrolytic capacitor 10V100μF SS	3
C312,502,512	182-1073-32	Electrolytic capacitor 16V100μF SS	3
C325,326	182-2256-52	Electrolytic capacitor 35V2.2μF SS	2
C110,114	183-1043-62	Electrolytic capacitor 50V0.1μF USS	2
C 108,123,203 204,210,211 315,316,320 323	183-1053-62	Electrolytic capacitor 50V1μF USS	10
C 107,116,301 302,306,309 310,311,313 314,321,322 339,340,401 402	183-1063-32	Electrolytic capacitor 16V10μF USS	16
C205,206,304	183-1073-12	Electrolytic capacitor 6.3V100μF USS	3
C324	183-2263-12	Electrolytic capacitor 6.3V22μF USS	1
C127,329,330	183-2263-32	Electrolytic capacitor 16V22μF USS	3
C408	183-3343-62	Electrolytic capacitor 50V0.33μF USS	1
C409	183-3353-62	Electrolytic capacitor 50V3.3μF USS	1
C318	183-3363-22	Electrolytic capacitor 10V33μF USS	1
C126	183-4743-62	Electrolytic capacitor 50V0.47μF USS	1
C 209,217,307 338,341	183-4753-52	Electrolytic capacitor 35V4.7μF USS	5
C319,501,504	183-4763-12	Electrolytic capacitor 6.3V47μF USS	3
C 125,342,505 506,510	183-4763-32	Electrolytic capacitor 16V47μF USS	5
C307,308	183-6843-62	Electrolytic capacitor 50V0.68μF USS	2
C117,118	171-1232-06	Ceramic capacitor 0.012μF	2

NOTE : OM (Oxidized Metal) SS (Super Small)
S (Small) TC (Temperature-Compensating)
HD (Higher Dielectric) LL (Low Leak)
SC (Semi-Conductor) USS (Ultra Super Small)

■EXPLODED VIEW • PARTS LIST:

◎Main section



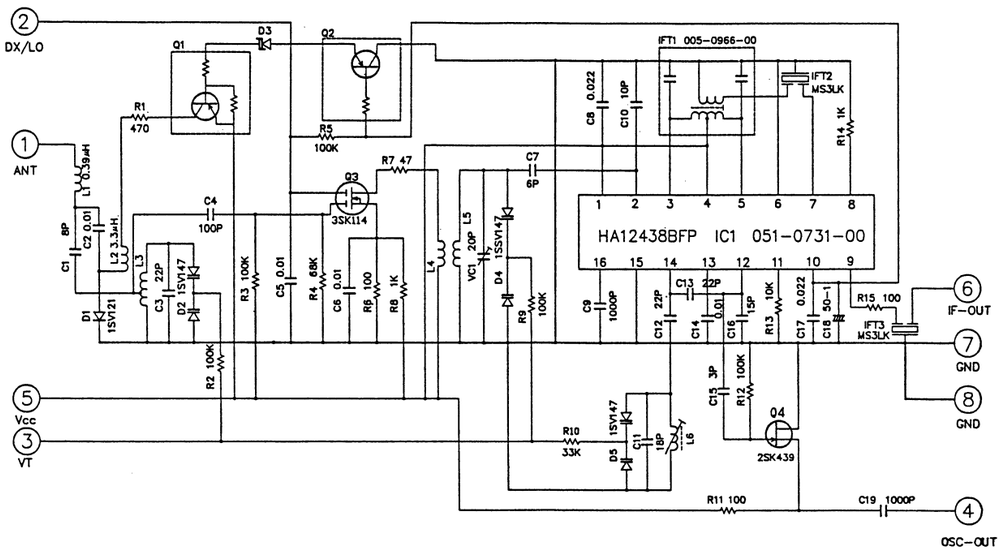
REF.NO.	PART NO.	DESCRIPTION	Q'TY
43-7	399-4140-00	Stopper	1
43-8	330-9335-01	Slide plate	1
43-9	750-2832-01	Spring	1
43-10	330-9330-01	Hook plate	1
43-11	330-9328-01	Slide plate	1
43-12	750-2833-00	Spring	1
43-13	399-4137-00	Stopper	1
43-14	330-9332-01	Slide plate	1
58	731-3008-40	Tap tight (M3x8)	2
59	722-0370-00	Nut	1
60	722-0433-00	Nut	2
61	012-4933-00	Variable resistor	1
62	012-4934-00	Variable resistor	2
63	330-9326-01	Volume holder	1
64	716-0877-00	Spacer	4
65	330-9416-00	Switch holder	1
66	013-3909-00	Switch	1
67	099-9039-01	P.W.B	1
68	930-0572-86	Tape mechanism	1
69	941-0177-01	AM Tuner pack	1
70	880-1419A	FM Tuner pack	1
71	330-9329-00	Earth plate	1
72	880-0201B	SDK block ass'y	1
73	880-0304B	NC MPX block ass'y	1
74	313-1416-01	Motor heat sink	1
75	088-0017-01	Battery	1
76	042-0412-01	Gold capacitor	1
77	330-8976-01	IC holder	1
78	051-0958-01	IC	1
79	313-1398-05	Heat sink	1
80	313-1278-00	Heat sink	1
81	303-0382-02	Upper cover	1
82	311-1432-03	Lower case	1
83	330-9333-01	Connector holder	1
84	854-1603-00	Extension lead	1
85	300-7645-01	Mounting bracket	1
86	854-1741-00	Extension lead (PU-9479A)	1
	854-1742-00	Extension lead (PU-9479B)	
87	716-1454-01	Connector screw	2
88	716-0878-00	Screw	11
89	714-2610-81	Machine screw (M2.6x10)	1
90	714-3005-81	Machine screw (M3x5)	1
91	731-3006-80	Tap tight (M3x6)	2
92	286-7413-01	Set plate (PU-9479A)	1
	286-7414-01	Set plate (PU-9479B)	
96	060-0057-56	Auto fuse (10A)	1
97	285-1410-00	Guide label (Service record)	1
98	285-1411-00	Guide label (Caution)	1
99	347-2342-00	Label	1
100	347-3189-02	Insulator	1
103	347-3032-00	Insulator	1
104	285-1199-00	Guide label	1
105	335-1360-00	Lock pin	1

REF.NO.	PART NO.	DESCRIPTION	Q'TY
1	940-1262A	Escutcheon ass'y (PU-9479A)	1
	940-1263A	Escutcheon ass'y (PU-9479B)	
1-10	099-8937-01	SW P.W.B	1
1-11	013-3694-00	Switch	12
1-12	347-3131-02	Protector	1
1-13	345-3436-13	Lamp cap	3
1-14	017-0345-09	Pilot lamp	3
1-15	716-0778-00	Wave screw	1
1-16	330-9327-01	LCD cover	1
1-17	373-0593-00	Dial cover	1
1-18	379-0015A	LCD ass'y	1

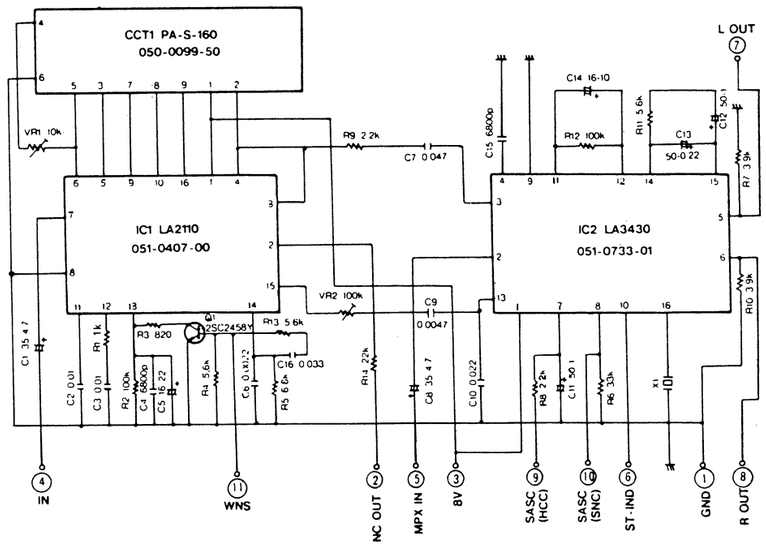
REF.NO.	PART NO.	DESCRIPTION	Q'TY
1-21	347-3133-00	Reflector	1
1-22	335-3319-00	LCD holder	1
1-23	347-3132-00	Conductor	1
1-24	099-8938-01	Flex. P.W.B	1
10	380-5125-00	Knob (B/T)	2
11	380-5127-00	Knob (Vol)	1
12	380-5126-00	Knob (FAL)	1
13	382-2172-01	Button (PRO)	1
14	382-2171-00	Button (REW)	1
15	382-2170-00	Button (FF)	1
37	345-3667-06	Lamp cap	1

REF.NO.	PART NO.	DESCRIPTION	Q'TY
38	017-0346-13	Pilot lamp	1
39	370-5193-01	Escutcheon	1
41	382-2266-00	Button	1
42	335-3315-00	Handle cover	1
43	946-0035-01	Handle ass'y	1
43-1	330-9334-01	Handle	1
43-2	399-4139-01	Stopper	1
43-3	750-2834-01	Spring	1
43-4	330-9331-01	Hook plate	1
43-5	399-4138-01	Stopper	1
43-6	330-9324-01	Side plate	1

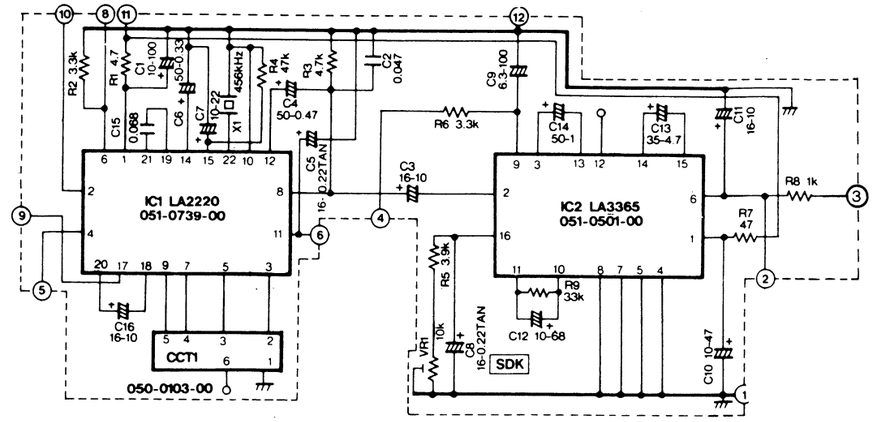
■FM(UKW) TUNER PACK: 880-1419A



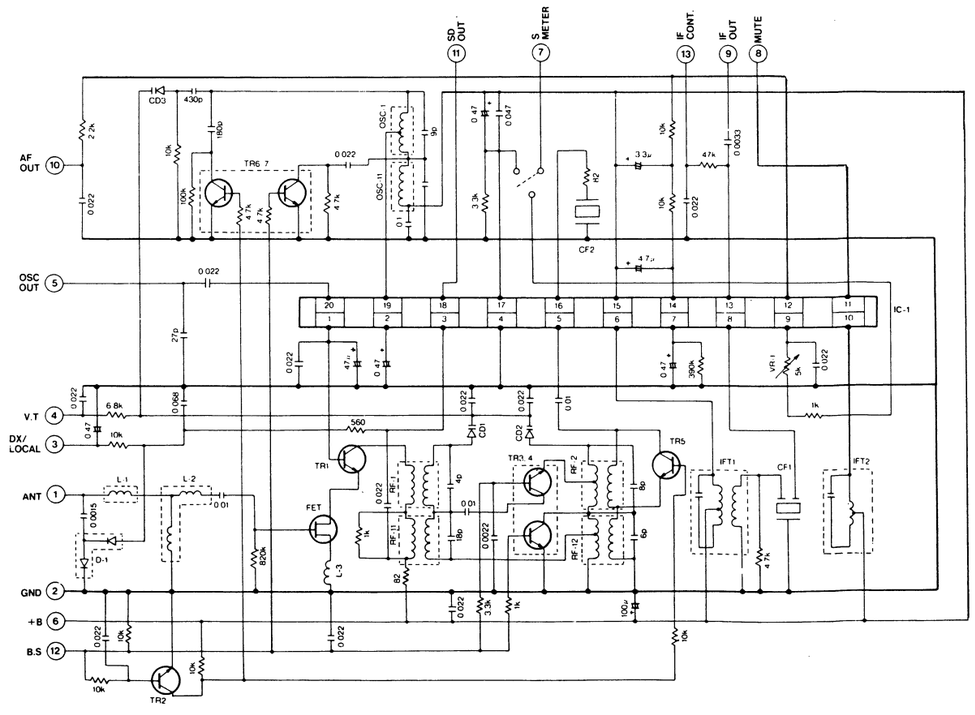
■NC MPX BLOCK ASS'Y: 880-0304B



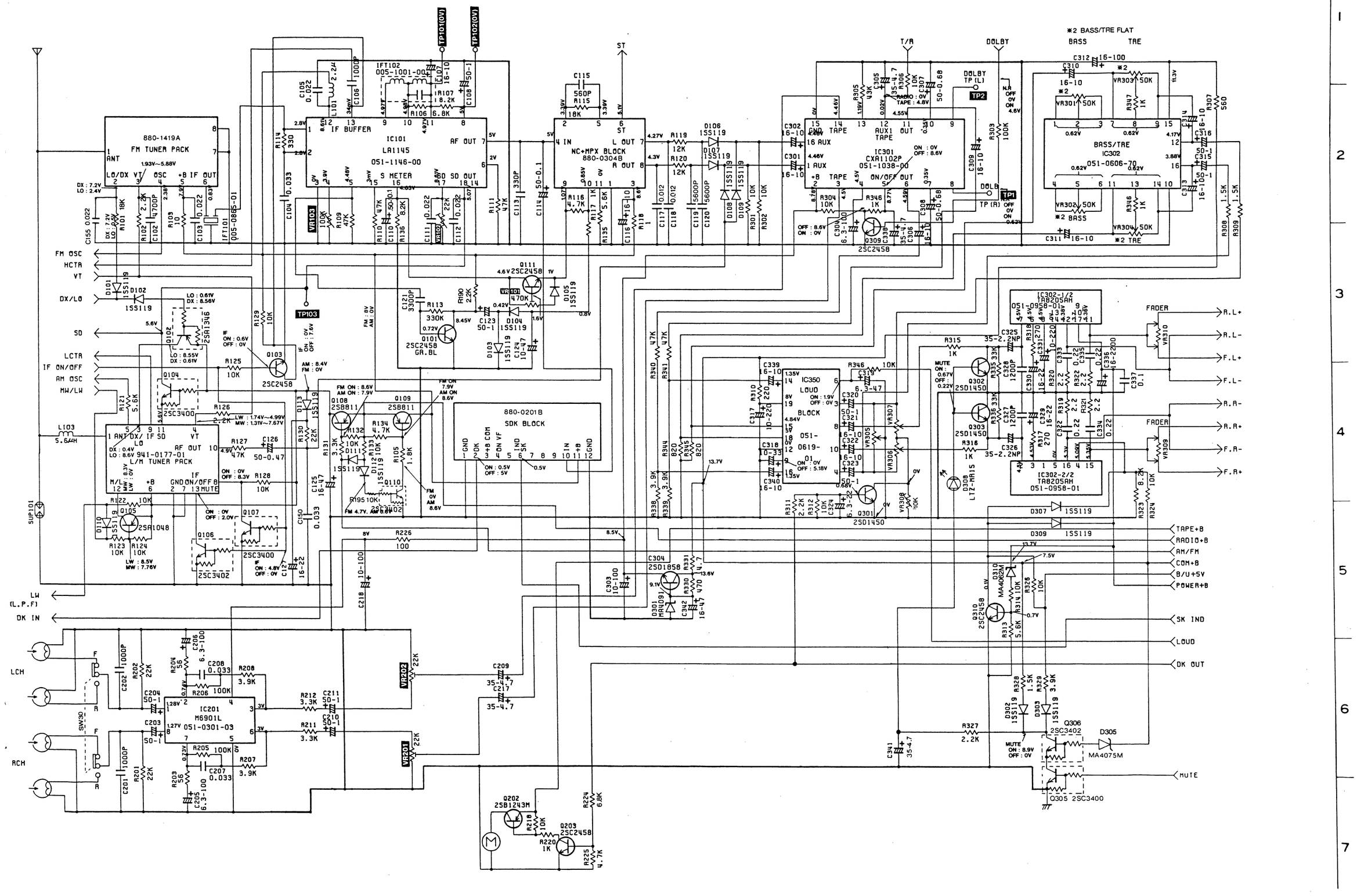
■SDK BLOCK ASS'Y 880-0201B



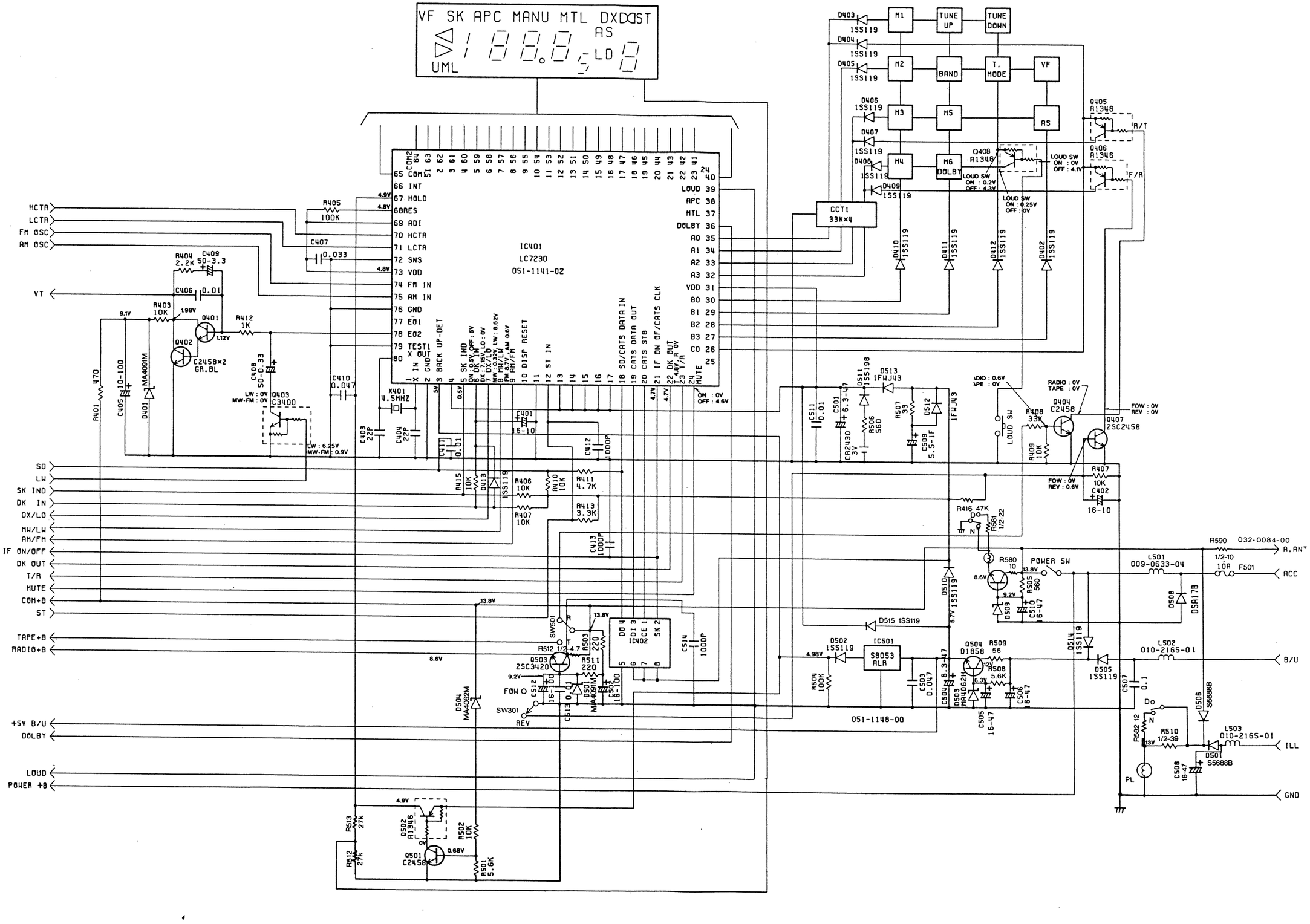
■MW/LW TUNER PACK: 941-0177-01



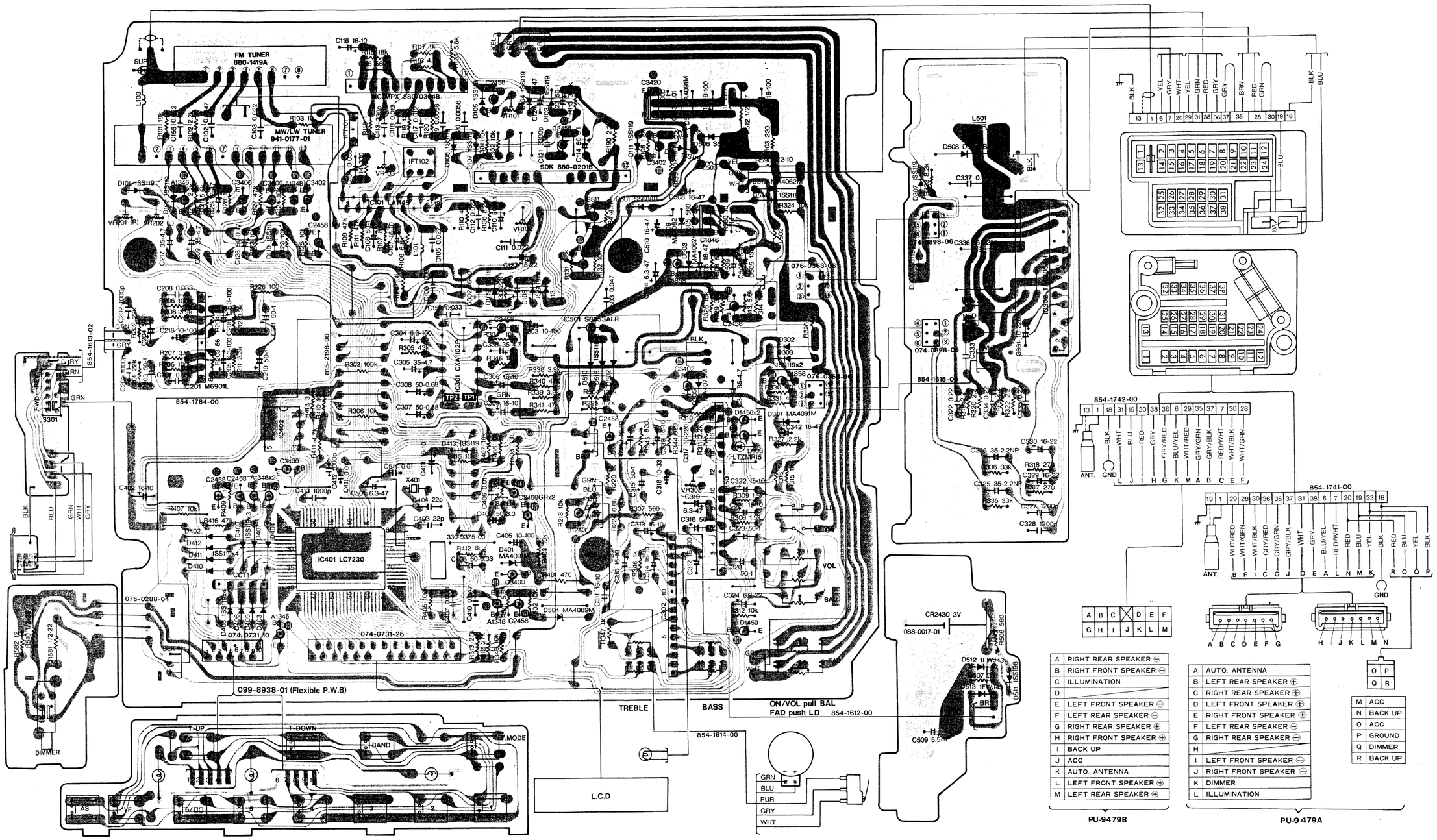
■CIRCUIT DIAGRAM: 1/2



■CIRCUIT DIAGRAM: 2/2



■PRINTED WIRING BOARD:



A	RIGHT REAR SPEAKER ⊖
B	RIGHT FRONT SPEAKER ⊖
C	ILLUMINATION
D	
E	LEFT FRONT SPEAKER ⊖
F	LEFT REAR SPEAKER ⊖
G	RIGHT REAR SPEAKER ⊕
H	RIGHT FRONT SPEAKER ⊕
I	BACK UP
J	ACC
K	AUTO. ANTENNA
L	LEFT FRONT SPEAKER ⊕
M	LEFT REAR SPEAKER ⊕

PU-9479B

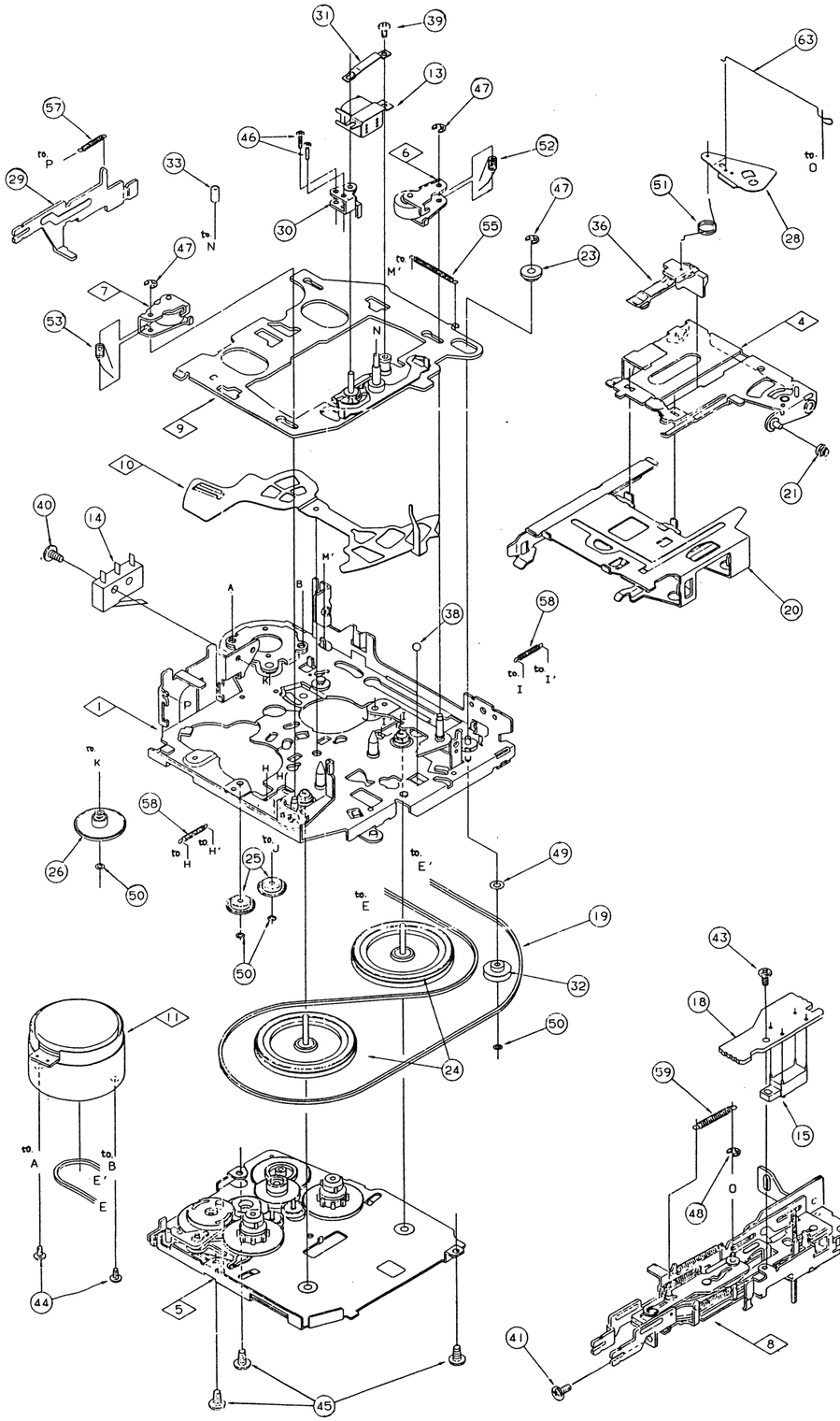
A	AUTO. ANTENNA
B	LEFT REAR SPEAKER ⊕
C	RIGHT REAR SPEAKER ⊕
D	LEFT FRONT SPEAKER ⊕
E	RIGHT FRONT SPEAKER ⊕
F	LEFT REAR SPEAKER ⊖
G	RIGHT REAR SPEAKER ⊖
H	
I	LEFT FRONT SPEAKER ⊖
J	RIGHT FRONT SPEAKER ⊖
K	DIMMER
L	ILLUMINATION

PU-9479A

M	ACC
N	BACK UP
O	ACC
P	GROUND
Q	DIMMER
R	BACK UP

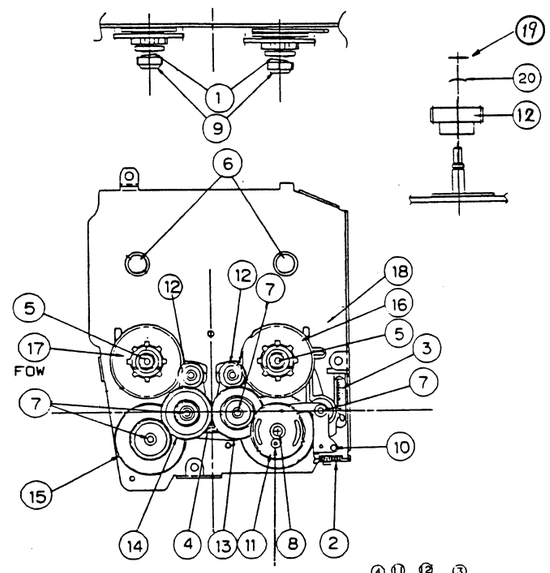
■EXPLODED VIEW • PARTS LIST:

◎Tape mechanism section **930-0572-86**



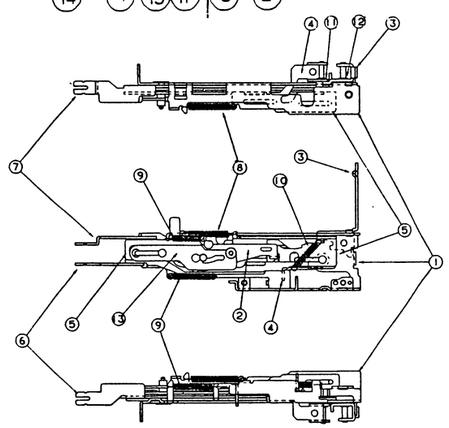
REF NO.	PART NO.	DESCRIPTION	Q'TY
1	960-3833-04	Deck P-ass'y C	1
4	960-3840-02	Guide arm-ass'y	1
5	960-4205-01	Bottom sub-A-C	1
6	960-3852-03	Roller-ass'y-F	1
7	960-3853-03	Roller-ass'y-R	1
8	960-3889-12	Frame sub-A-CS	1
9	960-3890-07	Head-P-ass'y CD	1
10	960-3881-05	CH plate-ass'y	1
11	SMA-121-100	Motor-ass'y	1
13	011-0310-01	Head	1
14	013-2690-02	Switch	1
15	013-3807-00	Switch	1
18	099-7852-01	P.W.B.	1
19	602-0103-10	Belt	1
20	606-0083-09	Pack guide	1
21.	610-0226-01	Roller	1
23	610-0294-01	Head-P-G-roller	1
24	611-0077-01	Flywheel	2
25	613-0095-01	FF idler gear	2
26	613-0087-10	Gear A	1
28	630-1932-02	Swing arm	1
29	630-2290-00	Program lever	1
30	630-1956-02	Adjust link	1
31	632-1962-02	Head spring	1

REF NO.	PART NO.	DESCRIPTION	Q'TY
32	604-0035-01	Tension pulley	1
33	631-0545-01	Eject roller	1
36	631-0552-03	Pack stopper	1
38	632-1888-00	Ball	1
39	716-0816-00	Screw	1
40	714-2308-81	Machine screw (M2.3×8)	1
41	714-2604-81	Machine screw (M2.6×4)	2
43	716-0790-02	Machine screw	1
44	716-0715-15	Screw	2
45	716-0717-10	Screw	3
46	716-0718-21	Screw	2
47	743-1500-20	E-ring	3
48	743-2000-20	E-ring	1
49	746-0624-00	Washer	1
50	746-0761-00	Washer	4
51	750-2361-01	Spring	1
52	750-2535-04	Roller spring F	1
53	750-2536-04	Roller spring R	1
55	750-2560-02	Head-P-spring	1
57	750-2541-02	Program spring	1
58	750-2545-00	FF gear spring	2
59	750-2620-00	Click spring	1
63	750-2569-03	Eject rod RS	1



◎BOTTOM SUB-A-C 960-4205-01

REF NO.	PART NO.	DESCRIPTION	Q'TY
1	750-2564-01	Slide spring	2
2	750-2544-03	Lock-L-spring	1
3	370-2543-01	Sensing spring	1
4	750-2542-00	Idler-P-spring	1
5	746-0813-00	Washer	2
6	746-0767-00	Washer	2
7	746-0761-00	Washer	4
8	716-0716-10	Screw	1
9	631-1967-00	Slide bush	2
10	631-0546-02	Lock link	1
11	613-0093-03	CH gear	1
12	613-0091-01	Play idler gear	2
13	613-0090-02	Gear R	1
14	613-0089-02	Gear F	1
15	613-0088-01	Gear B	1
16	960-3855-06	Reel ass'y R	1
17	960-3854-04	Reel ass'y F	1
18	960-4206-00	Bottom ass'y C	1
19	746-0797-00	Washer	2
20	745-0678-02	Washer	2



◎FRAME SUB-A-CS 960-3889-12

REF.NO.	PART NO.	DESCRIPTION	Q'TY
1	960-3882-02	Frame-ass'y-CS	1
2	960-3887-03	Select-P-ass'y-S	1
3	630-1930-02	Off arm	1
4	630-1931-03	Lock arm	1
5	630-1974-05	Eject plate CS	1
6	630-1945-04	FF lever C	1
7	630-1949-04	REW lever C	1
8	750-2548-01	Eject spring	1
9	750-2550-02	FF spring C	2
10	750-2557-02	Lock arm spring	1
11	743-1500-20	E-ring	1
12	743-2000-20	E-ring	1
13	960-3845-03	Click-P-ass'y	1

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